Eyes distinctly separated; antennæ slender, in length equal to about 1.5 times that of head and thorax combined, joints eleven to fifteen much elongated, the hairs on basal half of flagellum about equal in length to the joints on which they are situated. Mesonotum with numerous short setulose hairs on disc, the posterior half with two rows of three distinct bristles, situated on the lines generally occupied by dorso-centrals; the group of bristles in front of wing-base strong; scutellum short, its margin with about six bristles. Surface of abdomen with very short hairs. Legs of moderate strength, fore femora slightly thickened; thorns on femora as follows: fore, five or six; mid, one or two; hind, five or six; dorsal surface of hind tibiæ with the hairs setulose; basal joint of hind tarsi almost as long as remaining joints together; fourth joint very short, not over half as long as fifth, the latter without ventral spines; claws equal, rather short, about half as long as fifth joint, each with a distinct central tooth on inner side at middle. Third vein extending more than two thirds of the wing-length; first vein extending two fifths of the length of last section of third; media forking at cross vein, the base of posterior branch indistinct; cubitus forking slightly distad of the cross vein.

Male.—Similar to the female in color. Plumes of antennæ golden yellow, joints eleven to fifteen with short white hairs. Thoracic pruinescence very sparse.

Eyes narrowly separated; length of antenna about twice that of head and thorax combined. Bristles on posterior half of thorax stronger than in female. Hypopygium large, basal portion of lateral arm much swollen and nearly twice as long as the small clawlike apical portion. Legs more distinctly setulose than those of the female, all the tibiæ with series of distinct setulæ; tarsi as in female; claws equal, simple. Venation as in female. Length, 1.75–2.5 mm.

Type locality: Monticello, Ill., June 21–28, 1914 (J. R. Malloch).

The spines on mid femora are often difficult to see and for this reason I have inserted this species in the sections of table dealing with species "with" and also "without" spines.

A NEW SPECIES OF ARTHROMACRA WITH NOTES ON OTHER SPECIES OF LAGRIIDÆ.

By CHARLES W. LENG,
West New Brighton, N. Y.

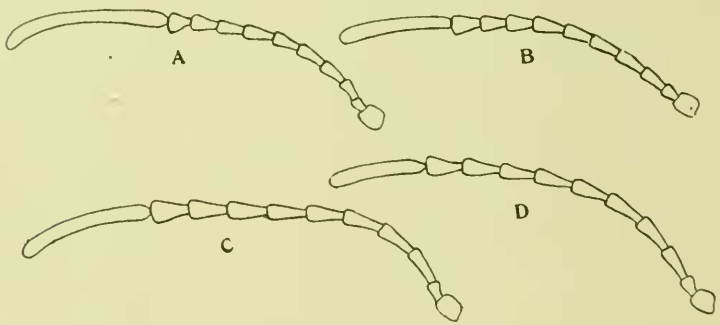
Col. Wirt Robinson has collected in Nelson Co., Virginia, a considerable number of a species of *Arthromacra* which differs from the previously described species by the vivid green color, the smooth, shining, distantly punctate thorax and especially by the great length of the last joint of the antennæ of the male. This species should be dedicated to him in recognition of the work he has done, though busy

with many other occupations, in making known the Coleoptera of West Point and Virginia, and may be described as follows:

Arthromacra robinsoni new species.

Vivid green above, dark cupreous beneath; pronotum smooth, shining, distantly punctate; antennæ, mouth parts, tibiæ and tarsi fuscous; the antennal joints, except the tenth, scarcely serrate, the eleventh joint very long in the male, 2.12 mm. in actual length, much longer than in *A. œnea,* and equal to at least six preceding joints combined, shorter in the female, equal to about four preceding joints. A little smaller, but otherwise similar to *A. œnea,* the elytra similarly rugosely punctate with faint indications of longitudinal costæ, and the tarsi similarly hairy beneath. Length, male, 8.0–8.5 mm.; female, 11 mm.

Occurs in Nelson Co., Va. Type male and female in my collection.



A. (male) B. (female) antennæ of *A. robinsoni.*
C. (male) D. (female) antennæ of *A. œnea.*

The proportions of the antennal joints are shown in the drawings, herewith reproduced, of Mr. C. E. Olsen. He detached the antennæ from the specimens and mounted them on slides, so that they could be drawn with the precise accuracy of microscopic measurements.

In *A. robinsoni,* being a smaller insect, the entire antenna is shorter than in *A. œnea;* but in both sexes the last joint is actually longer, and proportionately very much longer, as shown by the figures and measurements of Mr. Olsen, viz.:

A. robinsoni,	male,	entire antenna	= 5.25	mm., last joint	= 2.12	mm.
A. robinsoni,	female,	entire antenna	= 4.75	mm., last joint	= 1.5	mm.
A. œnea,	male,	entire antenna	= 6.00	mm., last joint	= 1.75	mm.
A. œnea,	female,	entire antenna	= 5.50	mm., last joint	= 1.3	mm.

In *A. robinsoni* the last joint of the male equals at least six preceding joints, the last joint of the female about four; in *œnea* the last

joint of the male equals about three and one third preceding joints, the last joint of the female about two and three quarters preceding joints.

The following details of the capture of this species have been supplied by Col. Robinson. "While collecting beetles near my home in Nelson County, Virginia, in the latter part of June, 1911, I noticed in the wood road that I was following numerous droppings of toads and, in all of these, brilliant golden green elytra of a beetle unknown to me. On June 30 I took one of these beetles crawling over dead leaves on the road side. On June 30, 1913, I went to the same locality with the hope of taking others but for some hours my search was unavailing. I finally came to a small opening in the woods where the timber had been cut down several years before and shoots, mainly of oak, had sprouted up around the stumps and reached a height of eight or ten feet. The clumps of these sprouts were very thick. At almost the first stroke of my beating stick there poured into my umbrella a shower of golden green beetles. In a few minutes I took over sixty. They were mating and I took many pairs in copulation. When fresh, the males are brilliant green, the females a red gold with greenish tinge; but after a while the females change to green like the males. To clinch my conclusion that I had a new species, the common form (*A. œnea*) was taken abundantly with the green one and the sexes were also mating; but in no case was there any pairing between individuals of different color."

This species has been compared with *A. glabricollis* Blatchley, of which the types were kindly loaned by the author; and no close resemblance was found. The antennæ in *A. glabricollis* are similar to those of *A. œnea,* the last joint being as long in the male as the three or four preceding joints combined. The thorax of *A. glabricollis* is also different from that of *A. robinsoni,* for while smooth as compared with that of *A. œnea,* the tendency to form transverse rugæ is still traceable, though reduced to a minimum, while that of *A. robinsoni* is absolutely smooth and shining, interrupted only by the distant punctuation. That *A. œnea* is variable in the degree of thoracic sculpture is well shown in a specimen I collected in the mountains of northern Georgia, in which the thorax is strongly transversely rugose, being in that respect exactly opposite to *A. glabricollis,* as well as the largest and most southern example known to me. This may be known as *œnea* var. *rugosecollis.* It is possible that *A. glabricollis* should

also be entitled to somewhat less than specific rank, since in this genus, as in Statira, specific difference seems to be indicated by a difference in relative length of antennal joints rather than sculpture.

Comparison has also been made with the original descriptions of Say's *ænea* and Kirby's *donacioides*, and with specimens, kindly sent by Mr. J. I. Beaulne, of Ottawa, of the latter. The Canadian specimens agree in every respect with those from the Atlantic States (of which the collection of Mr. Wm. T. Davis contains a long series) and with Kirby's description, based upon specimens from Lake St. Clair (between Michigan and Ontario) and Massachusetts. They do not however agree with Say's description of *A. ænea*, either in color or locality for he describes an insect that is "green, sometimes tinged with brassy" of which a specimen was obtained on "Red River" in the course of an expedition to the source of St. Peter's River. This would now be in North Dakota or northern Minnesota. I have been unable to obtain any specimens from Say's type locality; if any can later be examined, it is possible that they may not prove identical with Kirby's species; a possibility that becomes even a probability in view of the variations already made known and the discrepancies in the descriptions.

It seems also advisable to point out that the statement in Leconte and Horn's Classification that all our species of Lagriidæ belong to the tribe Statirinæ requires correction as mentioned by Champion (Biol. Cent.-Am. Col., IV, 2, p. 4). Seidlitz (Ins. Deutschl., V, 2, 1898) groups the species into three tribes, viz.: Trachelostenинæ, Lagriinæ and Statirinæ. The first comprises only six South American species, the second includes *Arthromacra* and other genera of palæarctic origin, the third includes *Statira* and other genera of tropical origin; and it is interesting to note that while *Arthromacra* occurs only in our northern region, *Statira* is represented by two species in the Antilles and in our southern states by thirteen species of which two reach as far north as Pennsylvania and New York. Many of the species of *Statira* have become known through Mr. Schaeffer's work in Arizona and Brownsville, Texas. Both genera occur in the vicinity of New York City, one coming down to us from the north, the other up from the south.

I have not found any American reference to the food habits of any species of Lagriidæ; the European *Lagria hirta*, the first species of the family to be described, has been repeatedly redescribed in all

its stages, the references in the Junk Catalogus covering two entire pages. The larva, fide Lyonet (Rech. s. l'anat., 1832, p. 112), feeds on the dead leaves, in which adult larvæ have been found in May; but Perris (Mem. Soc. Sc., Liege, 1855, p. 255), thought this view contestable on account of the affinities observed with larvæ of Silphidæ and Dermestidæ and suggested that the food was more probably dead or living animal matter, hidden in the leaves.

As the list of our species of Lagriidæ contained in Junk Catalogue, 1910, is greatly increased, a list of the species now known is added.

Family **LAGRIIDÆ.**

Tribe *Lagriini.*

Genus **Arthromacra** Kirby.

A. ænea Say. Red River.
Say, Lang's Exped., II, 1824, p. 287; Horn, Trans. Am. Ent. Soc., XV, 1888, p. 28; Blatchley, Beetles of Indiana, 1910, p. 1284.
?donacioides Kirby, Fauna Bor. Am., IV, 1837, p. 239. N. E. America.
var. **glabricollis** Blatchley. Indiana.
Blatchley, Beetles of Indiana, 1910, p. 1285, fig. 570.
var. **rugosecollis** Leng n. var. Georgia.
A. robinsoni Leng n. sp. Virginia.

Tribe *Statirini.*

Genus **Statira** Serville.

Synopsis: Schaeffer, Journ. N. Y. Ent. Soc., XIII, 1905, p. 179.
S. basalis Horn. Southern United States.
Horn, Trans. Am. Ent. Soc., XV, 1888, p. 31.
S. croceicollis Mäklin. Southern United States.
Mäklin, Mex. Art. Act. Soc. Fenn., 1863, p. 594; Horn, *l. c.*, p. 30.
S. gagatina Melsheimer. Northern United States.
Melsheimer, Proc. Acad. Phil., II, 1846, p. 311; Horn, *l. c.*, p. 31.
Blatchley, Beetles of Indiana, 1910, p. 1285.
S. opacicollis Horn. Arizona.
Horn, *l. c.*, 1888, p. 30.
S. resplendens Melsheimer. Pennsylvania.
Melsheimer, *l. c.*, 1846, p. 311; Horn, *l. c.*, p. 30; Blatchley, *l. c.*, 1285.
S. robusta Schaeffer. Texas.
Schaeffer, Journ. N. Y. Ent. Soc., 1905, p. 180.
S. subnitida Leconte. Lower California.
Leconte, New Spec. Col., 1866, p. 141; Horn, *l. c.*, p. 29.
S. colorata Fall. Lower California.
Fall, Can. Ent., 1909, p. 165.
S. pluripunctata Horn. Arizona.
Horn, *l. c.*, 1888, p. 29; Champion, Biol. Cent. Am. Col., IV, 2, p. 52.

S. simulans Schaeffer. Texas.
Shaeffer, *l. c.*, XIII, 1905, p. 180.
S. huachucæ Schaeffer. Arizona.
Schaeffer, Sci. Bull. Brookl. Inst. Mus., I, 1905, p. 176.
S. defecta Schaeffer. Arizona.
Schaeffer, *l. c.*, p. 175.
S. pulchella Mäklin. Mexico, Texas.
Mäklin, *l. c.*, p. 589; Champion, *l. c.*, p. 32, pl. 2, fig. 8; Schaeffer, Journ. N. Y. Ent. Soc., XIII, 1905, p. 180.

There are many Mexican species of *Statira*, which are not included in this list.

A SHORT REVIEW OF THE NORTH AMERICAN SPECIES OF ONTHOPHAGUS (COL. SCARAB.).

BY CHARLES SCHAEFFER,
BROOKLYN, N. Y.

The addition of three more species of *Onthophagus* to our fauna besides those species made known since Dr. Horn published his paper[1] on the North American species of this genus make it advisable to give an account of all our species. Dr. Horn enumerated five species in the paper mentioned above with three varieties of *janus*. Two of these varieties, *subæneus* and *orpheus*, are restored to specific standing as they are in no way connected with each other. The armature of the head and prothorax of the males of certain Scarabæidæ differ very much individually and are greatly reduced in the smaller and feebler males which resemble then more or less the females, but, as a rule, either the reduction or the stronger development of the armature affects the head and prothorax alike in the same species and never is one part more developed or reduced than the other.

The males of those species of which the two sexes do not differ from each other in the form of prothorax are said to be known only by their more slender anterior tibiæ and smoother head. This is true, but the difference, especially in the anterior tibiæ, is not so striking in our species. However, a better character of distinguishing the two sexes, which I do not find mentioned anywhere, is the form of the

[1] Trans. Am. Ent. Soc., Vol. V, p. 137.